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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/895,605 | 06/29/2001 | Daniel Stefek | BARR0005 | 6760 |

22862 7590 12/16/2003

GLENN PATENT GROUP
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| EXAMINER |
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BOOKER, KELVIN E

| ART UNIT | PAPER NUMBER |
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2121

DATE MAILED: 12/16/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,605

Applicant(s)

STEFKE ET AL.

Examiner

Kelvin E Booker

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☒ Other: *Detailed Office Action*.

DETAILED ACTION

Information Disclosure Statement

1. **References “E”, “F”, “L” and “R”** of the information disclosure statement filed December 18, 2001 (see paper no. 2), fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the cited references do not provide dates in which the articles were made available to the public. They have been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim one** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim one provides for the use of *combining two or more risk models to create a risk model with a wider scope*, but, since the claim does not clearly set forth the steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without clear active, positive steps delimiting how this use is actually practiced.

Further, **claim one** is narrative in form and replete with indefinite and functional or operational language. The structure used to make the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 1-3** are rejected under 35 U.S.C. 101 because the invention as disclosed in claim one and two is directed to non-statutory subject matter. While the claims are in the technological arts, they are not limited to practical applications in the technological arts.

Claims one and two are directed at *a method for combining risk models* without disclosing any computer implemented processing. Abstract ideas (see Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759) or the mere manipulation of abstract ideas (see Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58) are not patentable.

As disclosed, independent **claims 1-3** focus on nonfunctional descriptive material, which is inclusive of the mere arrangement of data without engaging functionality when employed as a computer component.

Further, **claims one and two** focus on a method for combining two or more risk models to create a risk model with a wider scope. To constitutionally interpret the word “process”, the Supreme Court has held that: “***A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. ***The Process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be a secondary consequence.”(emphasis added) *Diamond, Commission of Patents and Trademarks v. Diehr and Lutton*, 209 USPQ 1, 6 (1981) quoting *Cochrane v. Deener*, 94 U.S. 780, 787-788 (1876).

This Constitutional interpretation of the word “process” is a long-standing one that the Supreme Court requires to be applied in interpreting 35 USC 101. *Diamond v. Diehr* at 6. Consequently, the use of that interpretation is Constitutionally required when we interpret the Federal Circuit’s standard that a “new and useful process” is one that produces a useful, concrete, and tangible result”. Cf. *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 47 USPQ2d 1596, 1600-1601 (Fed. Cir. 1998).

Applicant discloses no “certain substances” that have been “transformed or reduced” in that applicant’s claims disclose no specific computer-readable medium, no manipulation of specific data representing physical objects or activities (pre-computer activity), nor do they disclose any specific independent physical acts being performed by the invention (post-computer activity).

The claims merely manipulate abstract ideas in general without limitation to a practical application where “certain substances” are transformed or reduced. **Claim three** does not cure the defect in **claim two**. On this basis, **claims 1-3** are rejected under 35 USC 101.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claim two** is rejected under 35 U.S.C. 102(e) as being anticipated by Labe, Jr. et al., U.S. Patent Application Publication No. 2002/0091605 [hereafter Labe].

As per claim two, Labe teaches of a method for combining two or more risk models to create a risk model with wider scope than its constituent parts, comprising the steps of:

A. denoting a class of algorithms for constructing estimates of covariance matrices from time histories of data (see figure 6; and page 8, paragraphs [0084]-[0089]: “Fig. 6 shows a flowchart...the factor analysis”);

B. denoting a class of asset classes (see paragraph [0053]: “Another element comprising...or by both”);

C. denoting a class of multi-factor risk models (see paragraph [0053]; paragraphs [0083] and [0084]; and paragraph [0110]); and

D. constructing risk models for each asset class as follows:

(1) applying a method to estimate a covariance matrix from a history (see page 9, paragraph [0107]-[0108]: “Fig. 6 shows...monthly or semimonthly); and

(2) combining asset class risk models to form a risk model with broad coverage that is consistent with each asset class model (see page 9, paragraphs [0106]-[0111]: “In addition to the overall...return (highest risk)”).

Conclusion

9. The following is prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

A. Bennett, U.S. Patent Application Publication No. 2003/0208429;

B. Feuerverger, U.S. Patent Application Publication No. 2003/0139993;

C. Scott et al., U.S. Patent Application Publication No. 2003/0078867;

D. Bernhardt, U.S. Patent Application Publication No. 2003/0055765;

E. Hunter et al., U.S. Patent Application Publication No. 2003/0046212;

F. Balson et al., U.S. Patent Application Publication No. 2003/0033240;
G. Horner et al., U.S. Patent Application Publication No. 2003/0009409;
H. Korin, U.S. Patent Application Publication No. 2003/0009408;
I. Quaile, U.S. Patent Application Publication No. 2002/0165841;
J. Li, U.S. Patent No. 6,453,303;
K. Labe, Jr. et al., U.S. Patent Application Publication No. 2002/0091605;
L. Rebane, U.S. Patent No. 6,405,179;
M. Maggioncalda et al., U.S. Patent No. 6,012,044;
N. Tom, U.S. Patent No. 5,832,465;
O. Cai et al, "Portfolio Optimization Under l_{∞} Risk Measure";
P. Gordon, J., "Security Modeling";
Q. Mulvey, J.M., "Solving Robust Optimization Models in Finance"; and
R. Vacca, "Managing Options Risk with Genetic Algorithms".

10. An inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Booker whose telephone number is (703) 308-4088. The examiner can normally be reached on Monday-Friday from 7:00 AM-5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri, can be reached on (703) 305-0282. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

An inquiry of a general nature or relating to the status of this application proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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K.E.B.

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December 5, 2003

A handwritten signature in black ink, appearing to read 'ANIL KHATRI', with a long, sweeping horizontal stroke extending to the right.

**ANIL KHATRI
SUPERVISORY PATENT EXAMINER**